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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/551,871	04/18/2000	Kazunari Yoshida	0020-4699P	2420

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EXAMINER

HUNTER, ALVIN A

ART UNIT	PAPER NUMBER
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3711

DATE MAILED: 11/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/551,871

Applicant(s)

YOSHIDA ET AL.

Examiner

Alvin A. Hunter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,5,6,9-13 and 15-19 is/are rejected.
- 7) ☒ Claim(s) 4,7,8 and 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 9-13, and 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. (USPN 5184828).

Regarding claims 1, 9, 10, 13, and 15-19, Kim et al. discloses a three-piece golf ball having a inner core, outer core, and cover wherein the golf ball exhibits superior rebounding and carrying characteristics (See Column 1, lines 42 through 60). Kim et al. discloses the inner core having a central hardness of 30 to 48 Shore D, or 50 to 73 JIS-C, and a hardness at the outer site of the inner core of 46 to 62 Shore D, or 71 to 92 JIS-C (See Abstract and Figure 1). The inner core also has a diameter of 23 to 35 mm (See Figure 1). The outer core has a hardness of 30 to 56, or 50 to 84 JIS-C, and a diameter of 36 to 41mm (See Abstract). From the disclosed ranges for the inner and outer core above, the outer core can have a thickness from at least 1mm to 18mm. As shown above, the outer core is less than the surface hardness of the inner core by at least 21, and the surface hardness of the inner core is higher than the central hardness of the inner core by at least 21. It is also noted that both the inner and outer cores are made of polybutadiene, a co-crosslinking agent, an organic peroxide and fillers (See Columns 3 and 4). Kim et al. does not explicitly disclose a range difference for the outer

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core and inner but notes that the outer core must be lower than that of the inner core. Therefore, one having ordinary skill in the art would have drawn therefrom that the difference between the two layer may be of any value so long as the hardness of each layer are within the above ranges and the outer core is lower than the inner core. Kim et al. does not explicitly disclose the polybutadiene being at least 40% cis. High cis polybutadiene, in particular over 40% cis, have been employed in the cores of golf ball for over 20 years. One having ordinary skill in the art would have found it obvious to employ a polybutadiene having 40% cis because it is common within the art. If applicant is in doubt, see the prior art that has been cited throughout the prosecution.

Regarding claims 11 and 12, Kim et al. notes that the hardness of each site inbetween the inner core and outer core should not be within 2 units of each other; therefore, one having ordinary skill in the art would have drawn therefrom that the difference between the inner core and outer core can be any value so long as it is in the prescribed hardness range for the center hardness and surface hardness of the inner core and thus would have been obvious.

Claims 3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. (USPN 5184828) in view of Hanada et al. (USPN 4483537).

Kim et al. discloses that the co-crosslinking agent may be a metal salt such as zinc diacrylate, zinc dimethacrylate, and the like, but does not disclose the co-crosslinking being magnesium methacrylate. Tanaka et al discloses a core having a metal salt co-crosslinking agent from the group of zinc acrylate, magnesium acrylate, zinc methacrylate, and magnesium methacrylate (See Paragraph bridging Columns 2 and

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3). It is submitted that used of magnesium methacrylate is a substitutional material for that of a zinc acrylate type. One having ordinary skill in the art would have found the invention of Kim et al. to perform substantially the same substituting magnesium methacrylate for any other metal salt in order to increase the rebounding characteristics of the golf ball.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. (USPN 5184828) in view of Horiuchi et al. (USPN 5702312).

Kim et al. discloses that the cover is made of an ionomer resin such as Surlyn™ and has a thickness of 0.9 to 2.6mm, but does not disclose the hardness of the cover (See Column 6, lines 31 through 38). Horiuchi et al. discloses a three-piece solid golf ball having a cover made of an ionomer, such as Surlyn™, having a Shore D hardness of 52 to 64 wherein the cover hardness attributes good flight distance, controllability, and feel to the golf ball (See Columns 2 and 3). One having ordinary skill in the art would have found it obvious to have a cover with a Shore D hardness, particularly of 58 to 75, in order to optimized the flight distance, controllability, and feel of the golf ball.

Allowable Subject Matter

Claims 4, 7, 8, and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments with respect to claims 1 and 3-5 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alvin A. Hunter whose telephone number is 703-306-5693. The examiner can normally be reached on Monday through Friday from 7:30AM to 4:00PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Vidovich, can be reached on 703-308-1513. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AAN

Alvin A. Hunter, Jr.


GREGORY VIDOVIK
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